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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,311	05/11/2001	Atsushi Inagaki	1232-4713	5872
27123	7590	05/18/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			MISLEH, JUSTIN P	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/853,311	Applicant(s) INAGAKI, ATSUSHI	
	Examiner Justin P. Misleh	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Claims 1, 13, and 25 have been considered but are moot in view of the new grounds of rejection.
2. The Examiner approves Applicant's amendments to the title, abstract, and the drawings. There are no further objections to specification and drawings.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1- 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito in view of Tanaka et al.

For the following rejections, please refer, in Saito, to the following: figures 1 – 4, 6, and 7 and columns 3 (lines 37 – 56), 4 (lines 23 – 36), 5 (lines 49 – 67), 6 (lines 1 – 22 and 61 – 67), 7 (lines 1 – 8, 23 – 33, 66, and 67), 8 (lines 1 – 23), 10 (lines 12 – 15), 11 (lines 14 – 27), 12 (lines 42 – 49 and 60 – 66), 13 (lines 28 – 35 and 45 – 49), 14 (lines 26 – 33, 66, and 67), and 15 (lines 1 – 13, 27 – 33, and 42 – 53).

5. For **Claim 1**, Saito discloses, at least, two selectable camera modes of operation that include: a record mode and a movie mode. The record mode is configured to capture an image

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(In CCD 10), perform basic necessary image signal processing (In Image Signal Processing 12), perform image compression (In Compression/Expansion 16), and record the compressed image data in the recording medium (20; by means of Record/Reproduction 18), all over the CPU bus (14). The movie mode is configured to capture an image (In CCD 10), perform basic necessary image signal processing (In Image Signal Processing 12), and perform basic reproduction signal processing (In Reproduction Signal Processing 24) so as to continuously provide image data to appear on the monitor (26), all over the image bus (22). According to the user's mode selection, as shown in figure 2, a Bus Switching Circuit (212) in the Image Signal Processing (12) is activated so as to output the image data to either the CPU bus (14) or the image bus (22). The Bus Switching Circuit (212) operates according to the table in figure 4. When a record mode is selected, the Bus Switching Circuit (212) turns on a buffer allowing image data to access onto the CPU bus (14). When a movie mode is selected, the Bus Switching Circuit (212) turns the buffer to a hi-impedance state preventing image data from accessing the CPU bus (14) and allowing image data to access the image bus (22). Since when the movie mode is selected, image bus (22) access is allowed, the main controller (30), which is directly connected to the CPU bus (14), becomes idle (see column 6, lines 18 – 22). Thus, according to Saito it is possible to reduce the amount of information to be transferred via the CPU bus (14) during real-time movie mode operation; thereby allowing compression, image communication, and other processing using the general memory (36) connected to the CPU bus (14) to be performed without muting a picture appearing on the monitor (26). In summary, Saito discloses (column 15, lines 42 – 53), in the movie mode, image data are transferred from the image signal processing (12) to the image bus (22) and to the reproduction signal processing (24); therefore,

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“it is possible lower the operation clock frequency assigned to the main controller (30) or to interrupt the operation of the other circuitry, i.e., to control each section of the camera (1) to the sleep state or a stand-by or idle status”; thereby successfully reducing the power consumption of the entire camera (1).

In regards to the claim language, Saito discloses an image sensing apparatus (1), comprising:

an image sensor (10) configured to sense an image of a subject to obtain a sensed image;
an operating frequency setting device (Bus Switching Circuit 212 and main controller 30; see column 8, lines 1 – 12) configured to set an operating frequency of said image sensing apparatus to at least one of a first operating frequency (The first operating frequency corresponds to the operating frequency of the main controller 30 in any mode of play mode and record mode, wherein the main controller 30 and CPU bus 14 are in an active state, as exemplarily shown in figure 7) or a second operating frequency different from said first operating frequency (The second operating frequency corresponds to the operating frequency of the main controller 30 in the movie mode, wherein the main controller 30 and the CPU bus 14 are in an idle state, as shown in figure 6); and

a display unit (26) configured to display the sensed image (movie mode), said display unit (26) being capable of display operations at any of said first or second operating frequencies (real-time movie mode) set by said operating frequency setting device (The image bus 22, as explained above, is operationally independent from the CPU bus 14. Saito discloses, two situations in a movie mode: the first situation is when the main controller 30 and CPU bus 14 are in an idle state, corresponding to the second operating frequency, and the second situation is

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when the main controller 30 and CPU bus 14 are in an active state, corresponding to the first operating frequency; wherein image data is continuously displayed in both situations; see column 15, lines 1 – 13 and 27 – 33).

However, Saito does not disclose wherein said operating frequency setting device sets the operating frequency of said image sensing apparatus based on whether said display unit is turned on or not.

On other hand, Tanaka et al. also disclose an image sensing apparatus with an operating frequency setting device. More specifically, Tanaka et al. disclose, as shown in figures 7, 8A, and 8B and as stated in column 8 (line 4) – column 9 (line 32), wherein the image sensing device with an operating frequency setting device for setting the operating frequency in response to driving mode of the image sensing apparatus. Tanaka et al. teach that driving mode “a” is an image monitoring mode for displaying a preview image on the LCD 107 wherein the operating frequency is “divided” to “1/m” (corresponding to the claimed “display unit is turned on”) and driving modes “b and c” are image adjustment and recording modes wherein images are not displayed on the LCD (see column 8, lines 57 – 60) and the operating frequency is not “divided” (see column 8, lines 37 – 42; corresponding to the claimed “display unit is turned off”). Thus, Tanaka et al. teach wherein said operating frequency setting device sets the operating frequency of said image sensing apparatus based on whether said display unit is turned on or not.

As stated in column 2 (lines 1 – 5) of Tanaka et al., at the time the invention was made, it would have been obvious to one with ordinary skill in the to have included wherein said operating frequency setting device sets the operating frequency of said image sensing apparatus based on whether said display unit is turned on or not, as taught by Tanaka et al., in the image

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sensing apparatus, disclosed by Saito, for the advantage of reducing the power dissipation of the image sensing apparatus without affecting picture motions on a monitor display or the quality of picked-up images.

6. For **Claim 13**, the claim language requires a method for controlling the image sensing apparatus required by Claim 1. The rejection of Claim 1 fully encompasses the apparatus aspect and method aspect required by both claims. For details regarding Claim 13, please see the rejection of Claim 1. The claims depending from Claim 13 follow suit, as described below.

7. For **Claim 25**, the claim language requires a storage medium that stores a control program comprising code for controlling the image sensing apparatus required by Claim 1. Saito does not actually describe a storage medium and control program details; however, in column 6 (lines 61 – 67) and column 7 (lines 1 – 8), Saito gives evidence that a storage medium and control program details inherently exist. In other words, the camera (1), which is controlled by a RISC processor, is inoperable without a storage medium that stores a control program comprising code for controlling the camera. The rejection of Claim 1 fully encompasses the apparatus aspect and coded method aspect required by both claims. For details regarding Claim 25, please see the rejection of Claim 1. The claims depending from Claim 25 follow suit, as described below.

8. As for **Claims 2, 14, and 26**, Saito discloses, wherein said second operating frequency (main controller 30 state during movie mode is idle) is lower than said first operating frequency (main controller state during record mode is active) and said operating frequency setting device (main controller 30) sets said first operating frequency when said sensed image is recorded (see

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column 13, lines 18 – 35, and column 15, lines 1 – 13; when the main controller 30 is needed it pulls itself out of the second operating frequency and into the first operating frequency).

9. As for **Claims 5, 17, and 29**, Saito discloses, as stated in columns 1 (lines 30 – 46), 13 (lines 18 – 35), and 15 (lines 1 – 13), wherein said second operating frequency (main controller 30 state during movie mode is idle) is lower than said first operating frequency (main controller state during record mode is active) and said operating frequency setting device (main controller 30) sets said first operating frequency when photography is performed (As stated above photography is included in the record mode and also when the main controller 30 is needed it pulls itself out of the second operating frequency and into the first operating frequency).

10. As for **Claims 3, 6, 15, 18, 27, and 30**, Saito discloses, wherein said display unit (26) is capable of displaying the sensed image obtained from said image sensor (10) at any of said first or second operating frequency (real-time movie mode).

The image bus 22, as explained above, is operationally independent from the CPU bus

14. Saito discloses, two situations in a movie mode: the first situation is when the main controller 30 and CPU bus 14 are in an idle state, corresponding to the second operating frequency, and the second situation is when the main controller 30 and CPU bus 14 are in an active state, corresponding to the first operating frequency; wherein image data is continuously displayed in both situations; see column 15 (lines 1 – 13 and 27 – 33).

11. As for **Claims 4, 7, 16, 19, 28, and 31**, Saito discloses, as stated in columns 13 (lines 18 – 35) and 15 (lines 1 – 13), wherein said operating frequency setting device (main controller 30) switches between said first and second operating frequencies in a case where said display unit (26) is operating (real-time movie mode).

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12. As for **Claims 8, 20, and 32**, Saito discloses, Saito discloses, wherein said display unit (26) is capable of displaying the sensed image obtained from said image sensor (10) at any of said first or second operating frequency (real-time movie mode).

The image bus 22, as explained above, is operationally independent from the CPU bus

14. Saito discloses, two situations in a movie mode: the first situation is when the main controller 30 and CPU bus 14 are in an idle state, corresponding to the second operating frequency, and the second situation is when the main controller 30 and CPU bus 14 are in an active state, corresponding to the first operating frequency; wherein image data is continuously displayed in both situations; see column 15 (lines 1 – 13 and 27 – 33).

13. As for **Claims 9, 21, and 33**, Saito discloses, Saito discloses, as stated in columns 13 (lines 18 – 35) and 15 (lines 1 – 13), wherein said operating frequency setting device (main controller 30) switches between said first and second operating frequencies in a case where said display unit (26) is operating (real-time movie mode).

14. As for **Claims 10, 22, and 34**, Saito discloses, as stated in column 13 (lines 18 – 49), further comprising a photography triggering member (“shutter release button”) for giving a command to start photography; and wherein said operating frequency setting device switches between said first and second operating frequencies in response to an operation of said photography triggering member (“main controller 30 may be ... adapted to cancel the sleep mode and execute the above pickup control when the operator presses the shutter release button halfway or touch the release button, in which case the controller 30 will setup the record mode”).

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15. As for **Claims 11, 23, and 35**, Saito discloses, as stated in column 7 (lines 47 – 65), further comprising a focusing device (TTL-AF) for performing a focus adjustment in response to an operation of said photography triggering member (“shutter release button halfway”).

16. As for **Claims 12, 24, and 36**, Saito discloses, as stated in column 7 (lines 47 – 65), further comprising a metering device (TTL-AE) for performing a metering operation in response to an operation of said photography triggering member (“shutter release button halfway”).

Cited Prior Art

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because they disclose various changes in the operational frequency of the image pickup device and/or image sensing apparatus, in response to user operation of the image sensing apparatus, e.g. image recording mode or image playback mode selection.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:00 PM and on alternating Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy R Garber can be reached on 571.272.7308. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
May 7, 2005


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